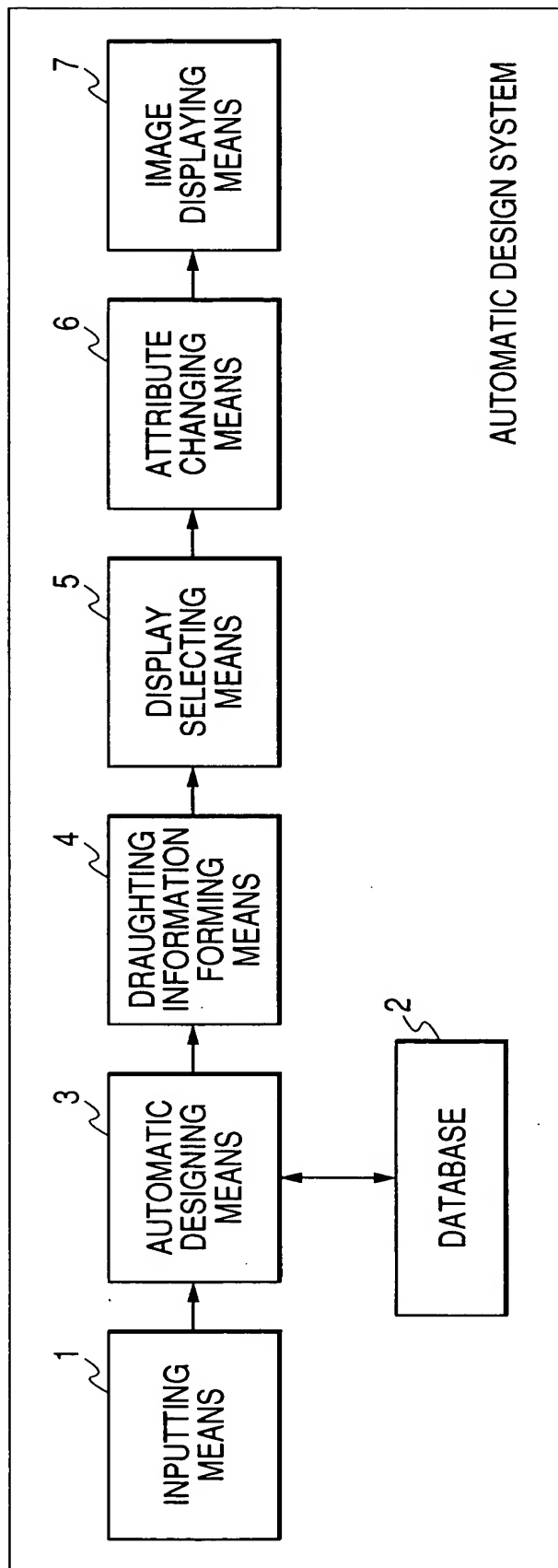




FIG. 1



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FIG. 2

	Dno	r1
	10 ~ 30	0.2
	30 ~ 50	0.3
	50 ~ 100	0.5

	Dgi	r2
	10 ~ 30	0.2
	30 ~ 50	0.3
	50 ~ 100	0.5

FIG. 3

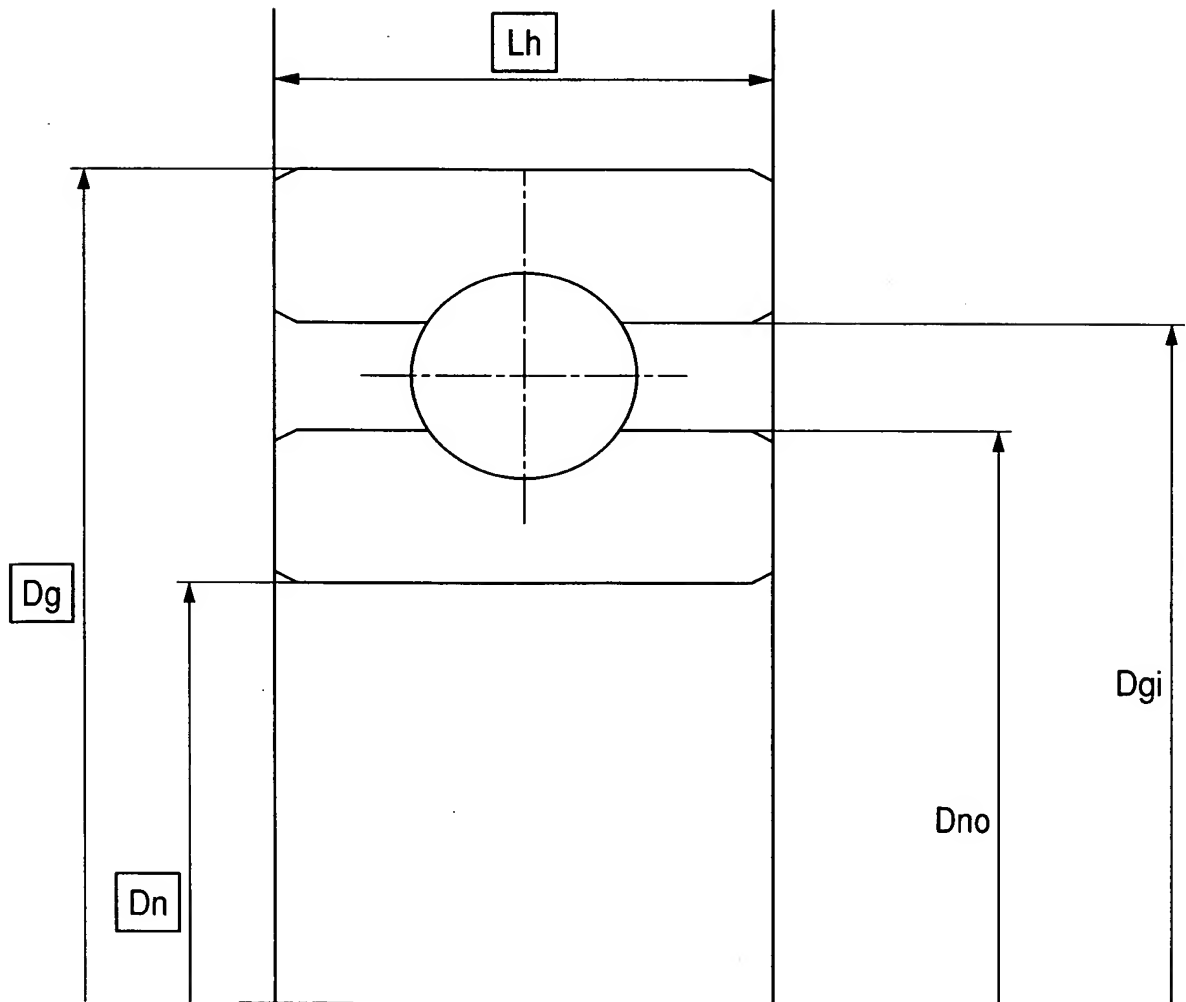
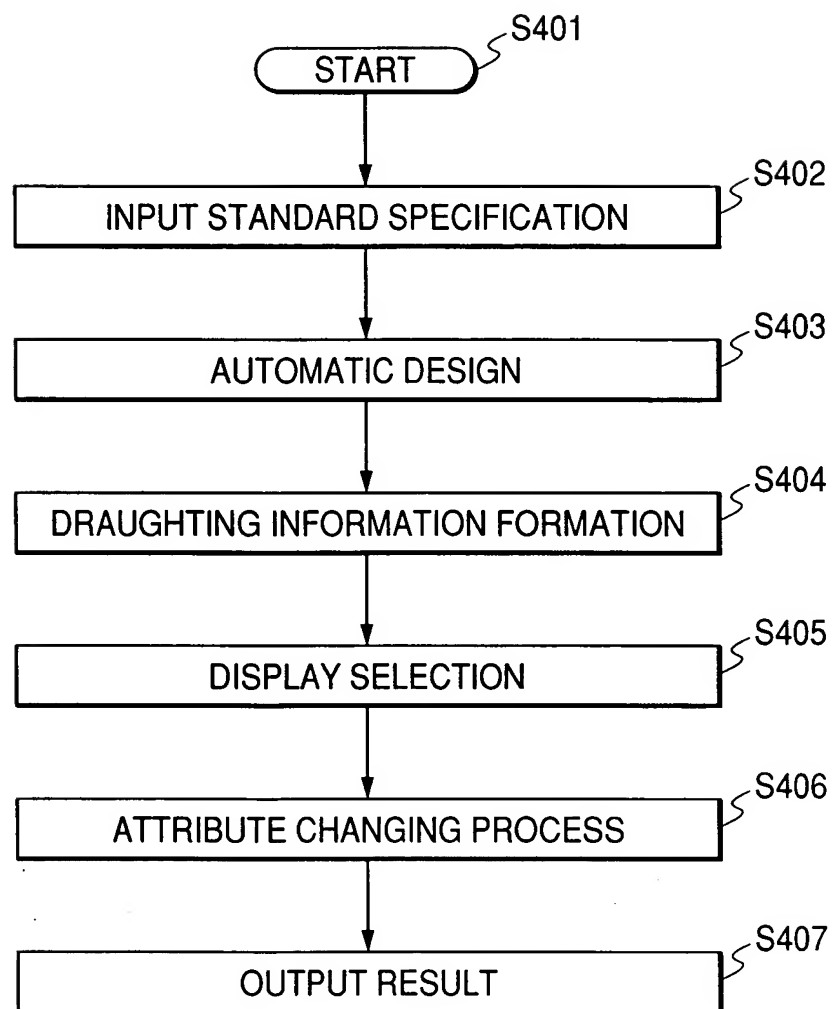


FIG. 4



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FIG. 5

INPUT STANDARD SPECIFICATIONS

Dn =

Dg =

Lh =

FIG. 6

AUTOMATIC COMPUTING PROCESS OF DETAILED PORTIONS

$$D_{no} = D_n + (D_g - D_n)/4$$

$$D_{gi} = D_{gn} - (D_g - D_n)/4$$

•

•

•

FIG. 7

DRAUGHTING INFORMATION FORMATION

$$X1 = X0$$

$$Y1 = Y0 + Dg/2$$

$$X2 = X1 + Lh$$

$$Y2 = Y1$$

...

...

$$P1 = (X1, Y1)$$

$$P2 = (X2, Y2)$$

$$P3 = (X3, Y3)$$

...

...

Line (P1, P2, y)

Line (P2, P3, y)

Txt ("Φ", Dg, y, m)

Txt ("Φ", Dn, y, m)

Txt (" ", Lh, y, m)

FIG. 8

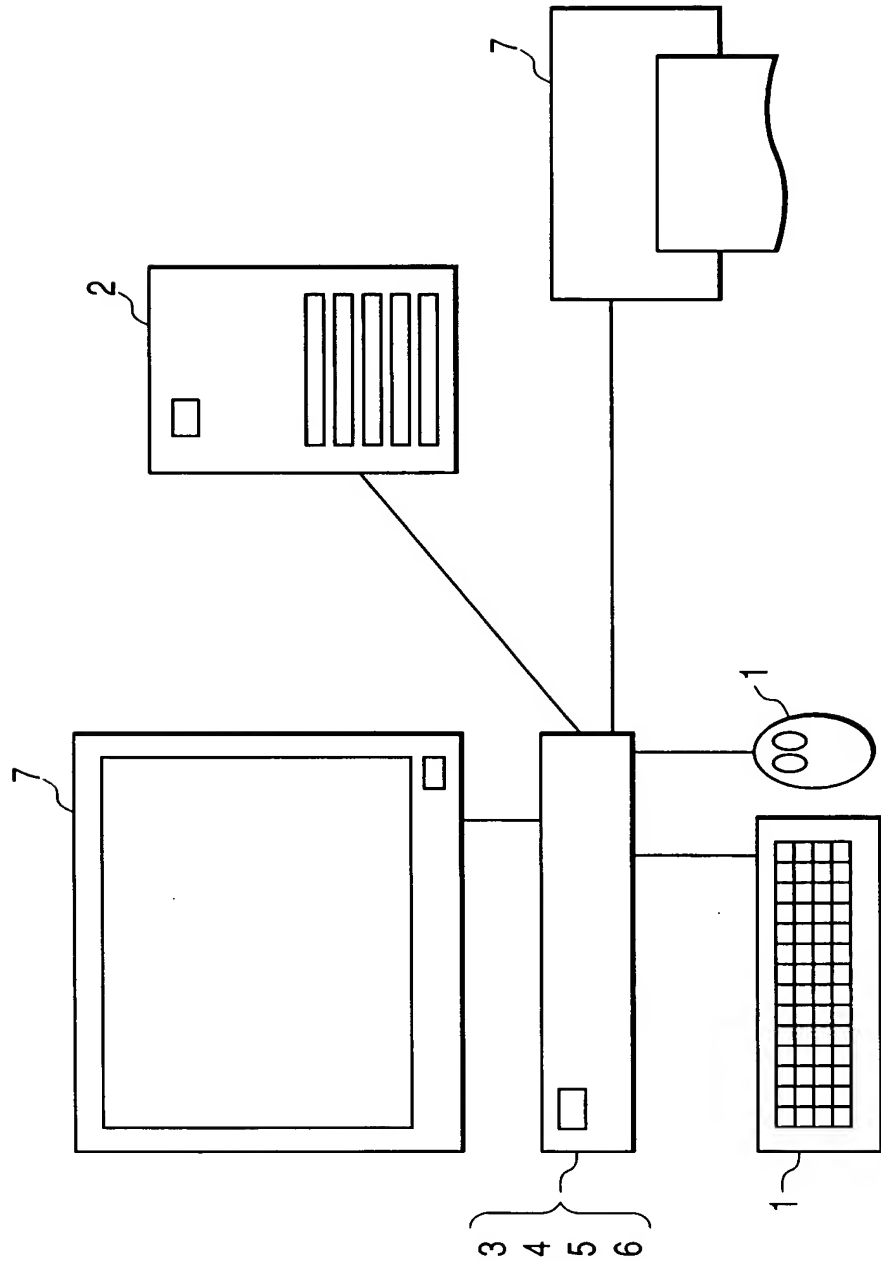
SELECTION OF DISPLAY

- ☐ STANDARD DISPLAY
- ☐ INPUT VALUE DISPLAY
- ☐ CHANGED PORTION DISPLAY
- ☐ INPUT & CHANGED PORTION DISPLAY

OK

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FIG. 9



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FIG. 10

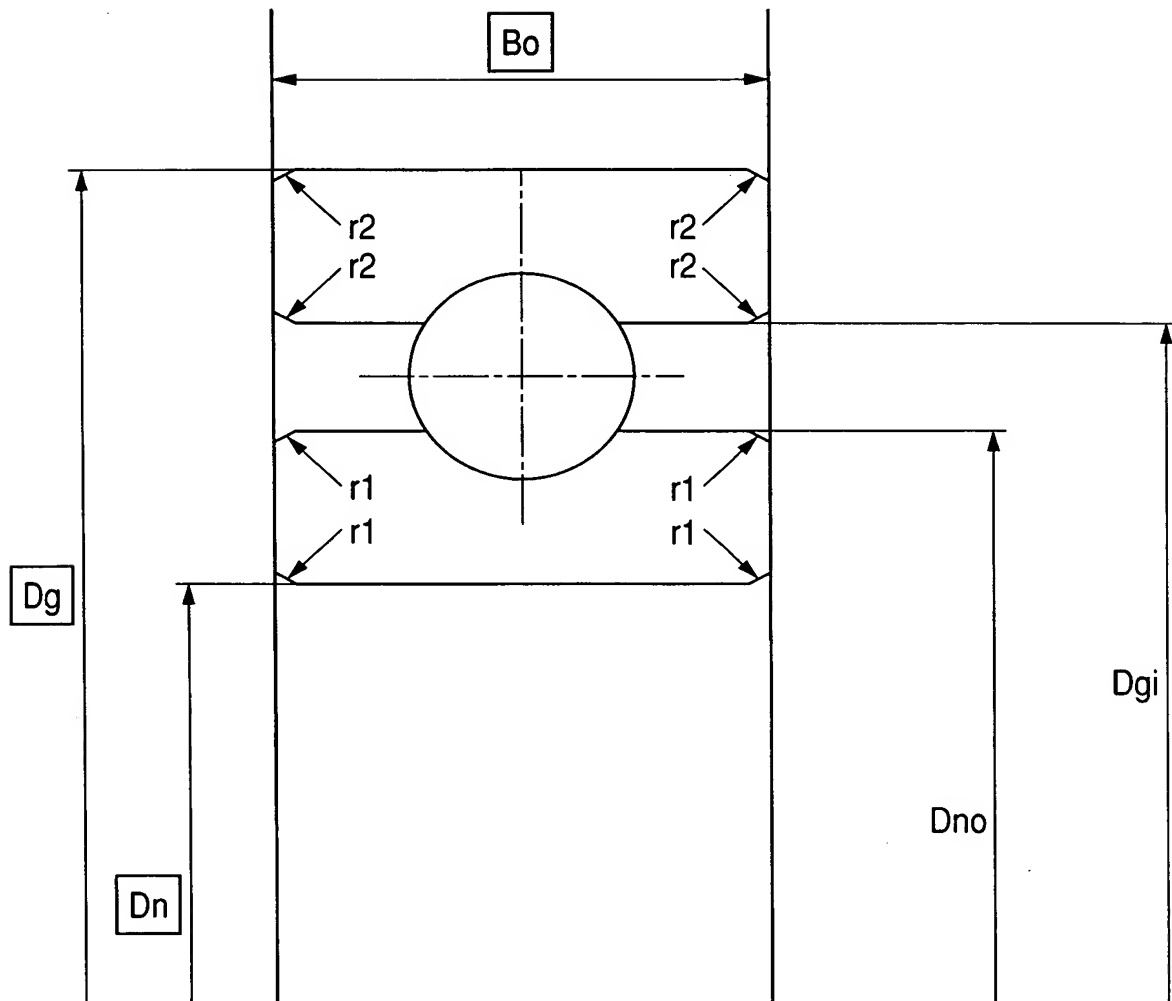


FIG. 11

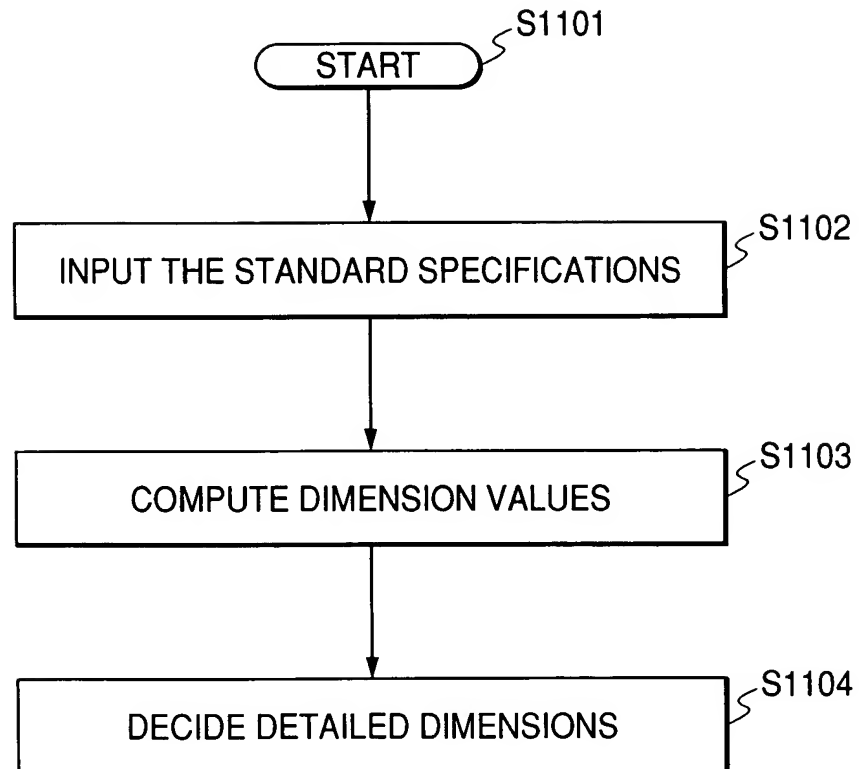


FIG. 12

INPUT STANDARD SPECIFICATIONS

Dn =

Dg =

Bo =

FIG. 13

AUTOMATIC COMPUTING PROCESS (1) OF DIMENSION VALUES

$$D_{no} = D_n + (D_g - D_n)/4$$

$$D_{gi} = D_{gn} - (D_g - D_n)/4$$

•
•
•

AUTOMATIC COMPUTING PROCESS (2) OF DIMENSION VALUES

$$r_1 = 0.2$$

$$r_2 = 0.3$$

•
•
•

FIG. 14

Dn = 10.0

Dg = 50.0

Bo = 10.0

Dno = 20.0

Dgi = 40.0

r1 = 0.2

r2 = 0.3

OK

NG

FIG. 15

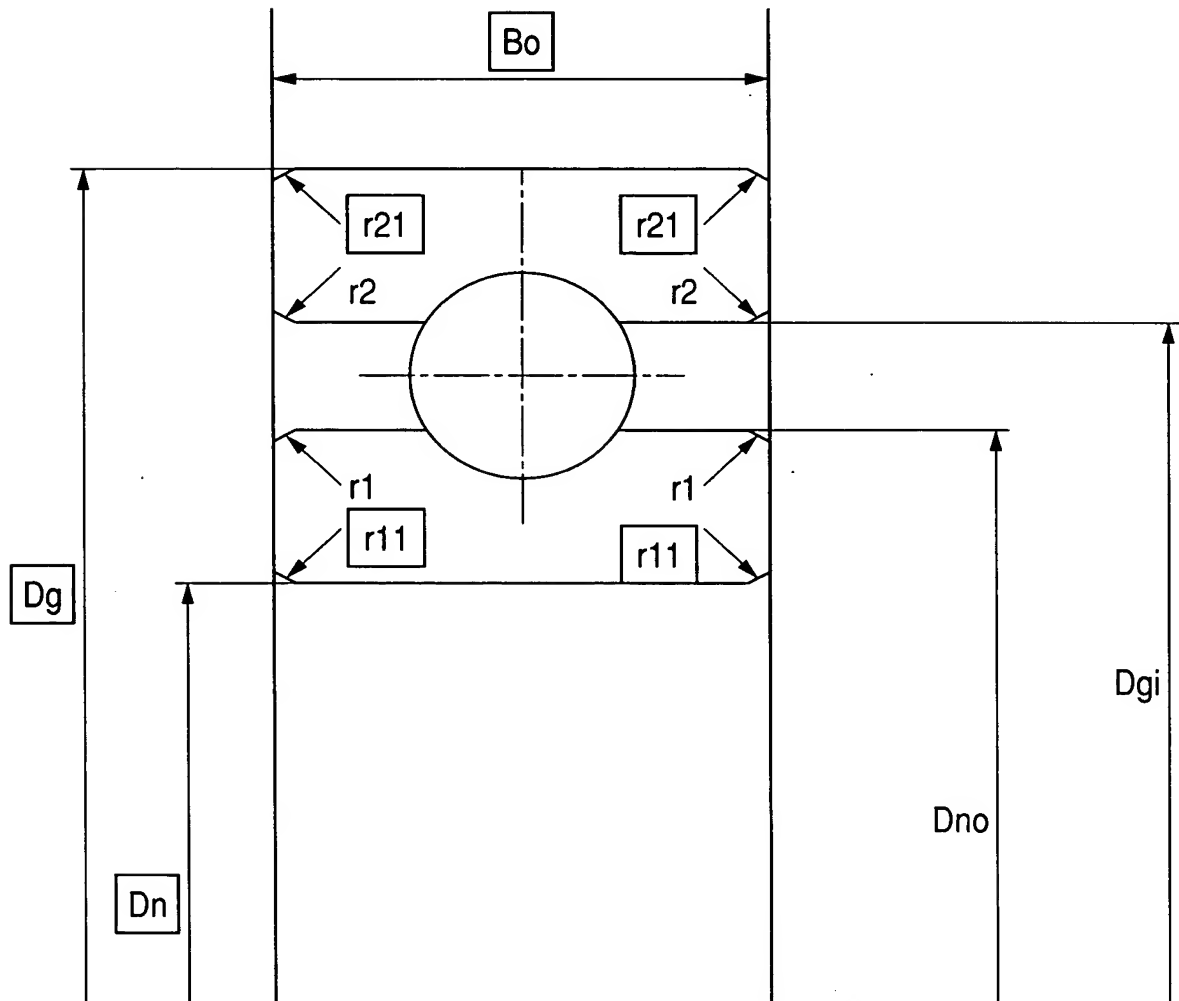


FIG. 16

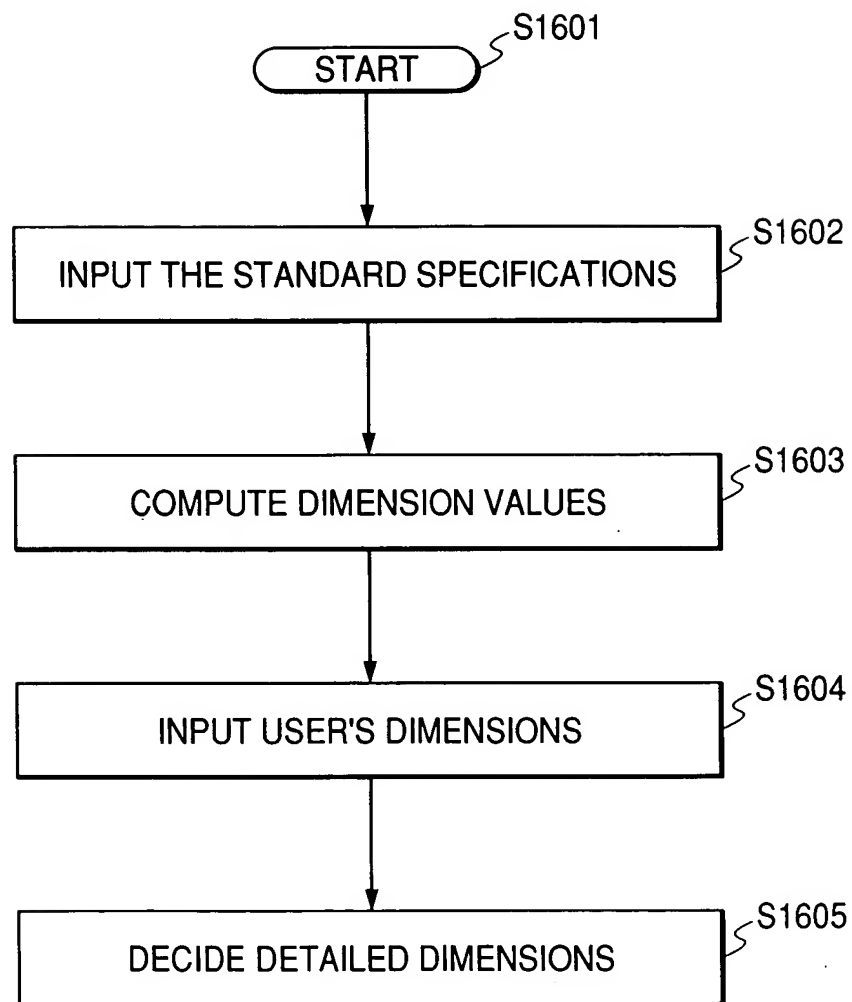


FIG. 17

INPUT USER'S DIMENSIONS

r11 =

r21 =

FIG. 18

Dn = 10.0

Dg = 50.0

Bo = 10.0

Dno = 20.0

Dgi = 40.0

r1 = 0.2

r2 = 0.3

r11 = XXX

r21 = XXX

OK

NG

FIG. 19

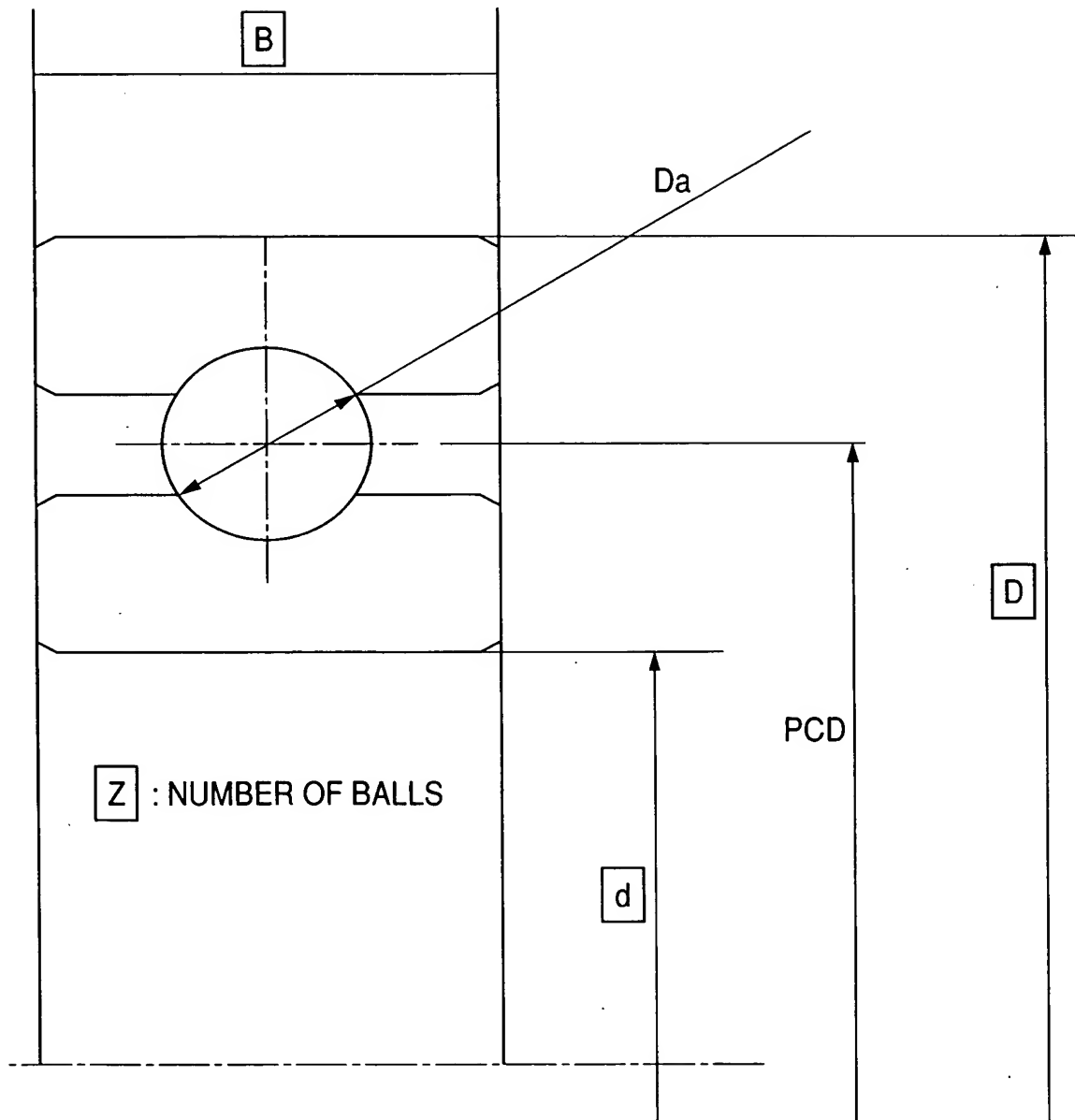


FIG. 20

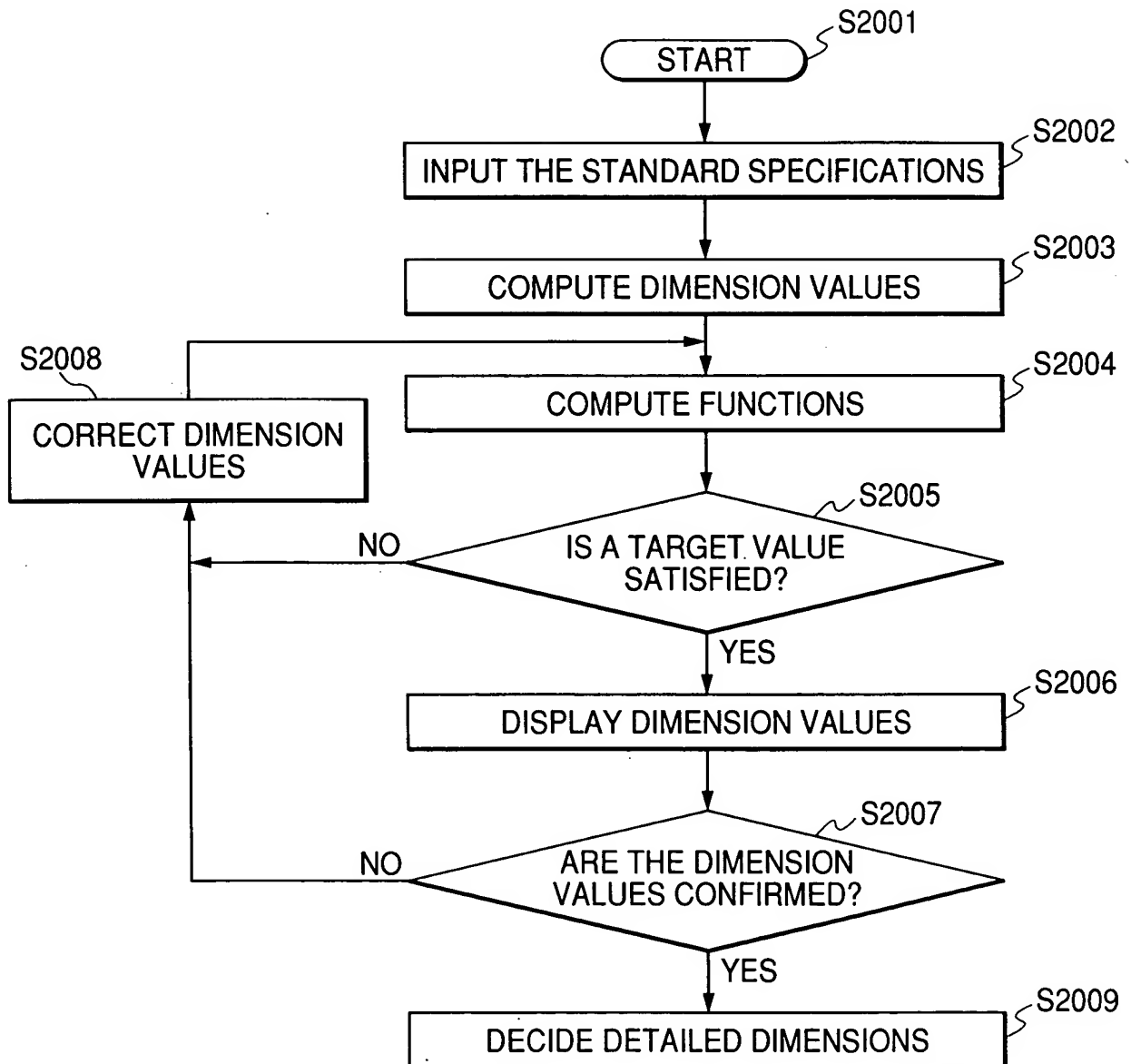


FIG. 21

INPUT THE STANDARD SPECIFICATIONS

D =

d =

B =

INPUT THE TARGETS

TARGET LIFETIME (L) =

h

NUMBER OF
REVOLUTION (R) =

Min

LOAD (P) =

Kg

OK

FIG. 22

AUTOMATIC COMPUTING PROCESS OF DIMENSION VALUES

•

•

•

$$Da = 4.0$$

$$PCD = 31.0$$

$$Z = 14$$

•

•

•

FIG. 23

LIFETIME COMPUTING PROCESS

$$C = f(\dots, \text{PCD}, Z, \text{Da} \dots)$$

$$L = (C/P)^3$$

(10^6 rev)

$$L_h = L/(R * 60)$$

(h) min^{-1}

FIG. 24

TARGET VALUE CONFIRMING PROCESS

IF $L_h < L$ (

NG : COMPUTE AGAIN AFTER THE DIMENSIONS ARE CHANGED

)

•

•

•

FIG. 25

CONFIRM DIMENSION VALUES

D = 30.0	STANDARD SPECIFICATION
d = 18.0	STANDARD SPECIFICATION
B = 10.0	STANDARD SPECIFICATION
Da = 4.0	COMPUTED VALUE
PCD = 31.0	COMPUTED VALUE
<div>Z = 14 MANUAL INPUT</div>	

OK

NG

FIG. 26

CORRECT DIMENSIONS

Z =

Da =

FIG. 27

D = 30.0

d = 18.0

B = 10.0

Da = 4.0

PCD = 31.0

Z = 15

OK

NG